

IN THE CLAIMS

Please amend claims 16-17 as follows below.

1       1. (Original) A computer system comprising:  
2           a memory;  
3           a register file coupled to the memory through a memory  
4       channel, the register file to store data for one or more  
5       procedures in one or more frames, respectively; and  
6           a register stack engine to monitor activity on the  
7       memory channel and to transfer data between selected frames  
8       of the register file and the memory responsive to available  
9       bandwidth on the memory channel.

1       2. (Original) The computer system of claim 1,  
2       wherein  
3           the memory includes a backing store  
4           and  
5           the register stack engine transfers data between the  
6       selected frames and the backing store.

1       3. (Original) The computer system of claim 1,  
2       wherein  
3           a portion of the register file is organized as a  
4       register stack.

1           4. (Original) The computer system of claim 3,  
2 wherein  
3           the register stack engine includes a first pointer to  
4 indicate a first location in a current frame of the register  
5 stack.

1           5-11.       (Cancelled)

1           12. (Original) A method for managing data in a  
2 register stack comprising:  
3           designating registers in the register stack as clean or  
4 dirty, according to whether data in the registers has been  
5 spilled to a backing store;  
6           monitoring operations on a memory channel; and  
7           spilling data from a current oldest dirty register to  
8 the backing store when capacity is available on the memory  
9 channel.

1           13. (Previously Presented) The method of claim 12,  
2 further comprising  
3           updating a pointer to indicate a new oldest dirty

4 register when data is spilled from the current oldest dirty  
5 register.

1           14. (Original) The method of claim 12, further  
2 comprising  
3           filling data from the backing store to a current oldest  
4 clean register when capacity is available on the memory  
5 channel.

1           15. (Cancelled)

1           16. (Currently Amended) A computer system comprising:  
2           a memory system;  
3           a register file to store data for an active procedure  
4 and one or more inactive procedures; and  
5           a register stack engine to monitor a memory channel to  
6 determine available bandwidth to the memory system and to  
7 transfer data between registers associated with the one or  
8 more inactive procedures and the memory system, responsive  
9 to the available bandwidth to the memory system.

1           17. (Currently Amended) The computer system of claim

2 16, wherein  
3       the computer system further comprises  
4            a load/store unit  
5           and  
6           the register stack engine to further monitor monitors  
7   the load/store unit to determine the available bandwidth to  
8   the memory system.

1       18. (Cancelled)

1       19. (Original) The computer system of claim 16,  
2  wherein  
3       the register stack engine transfers data for inactive  
4  procedures responsive to a mode status indicator.

1       20. (Cancelled)

1       21. (Original) The computer system of claim 19,  
2  wherein  
3       the mode status indicator is set under software control  
4  responsive to a type of application to run on the computer  
5  system.